THIRTY-FOURTH MEETING

NATIONAL DEAFNESS AND OTHER COMMUNICATION DISORDERS ADVISORY COUNCIL

October 7, 1999

National Institutes of Health Bethesda, Maryland

MINUTES

The National Deafness and Other Communication Disorders Advisory Council convened for its thirty-fourth meeting on October 7, 1999, in Conference Room 6, Building 31-C, National Institutes of Health (NIH), Bethesda, MD. Dr. James F. Battey, Jr., Director, National Institute on Deafness and Other Communication Disorders (NIDCD), served as Chairperson. In accordance with Public Law 92-463, the meeting was:

Open: October 7, 1999: 8:30 a.m. to 11:50 a.m., for the review and discussion of program development, needs and policy; and

Closed: October 7, 1999: 11:50 p.m. to 1:35 p.m. for review of individual grant applications.

Council members present:1

Dr. Rita Berndt

Dr. Gail Burd

Dr. Bernard Cohen

Dr. Robert R. Davila

Ms. Rebecca S. Dresser

Dr. Judy Dubno

Ms. Jane H. Fraser

Dr. Bernard Harris

Dr. Ronald Hoy

Dr. Jacqueline Jones

Dr. Miriam Meisler

Dr. Everett R. Rhoades

Ms. Donna Sorkin

Dr. Bettie M. Steinberg

Ms. Virginia W. Stern

Dr. Orlando Taylor

Dr. Gregory T. Wolf

Council member absent:

Dr. David P. Corey

1For the record, it is noted that members absent themselves from the meeting when the Council is discussing applications (a) from their respective institutions or (b) in which a real or apparent conflict of interest might occur. This procedure applies only to individual discussion of an application and not to "en bloc" actions.

Ex-Officio Members present:

Dr. Lucille B. Beck

Ex-Officio Member absent:

Dr. John R. Franks Dr. Michael E. Hoffer

The Council roster is found as Appendix 3.

Various members of the public, as well as NIDCD staff and other NIH staff, were in attendance during the open session of the Council meeting. A complete list of those present for all or part of the meeting is found in Appendix 2.

I. Call To Order and Opening RemarksDr. James F. Battey, Jr.

The meeting was called to order by Dr. Battey, Director, NIDCD, who expressed his appreciation to all Council members for their service and advice to the Institute.

II. Report of the Director, NIDCD......Dr. Battey

Dr. Battey included in his report a discussion of the following issues:

New NIDCD Advisory Council Members

Dr. Battey welcomed and introduced four new members of Council:

- <u>Gail D. Burd, Ph.D.</u> is Professor of Molecular and Cellular Biology at the University of Arizona in Tucson. Dr. Burd received her doctoral degree in neurobiology from the University of North Carolina at Chapel Hill. Her current research includes development of the olfactory system. She also has research expertise in the structure and function of olfactory and gustatory systems, gene expression and regulation, and the development of the nervous system.
- <u>Judy R. Dubno, Ph.D.</u> is Professor of Otolaryngology and Communicative Sciences at the Medical University of South Carolina, in Charleston. Dr. Dubno received her doctoral degree in speech and hearing sciences from the City University of New York. Her current research includes auditory analysis and speech recognition. She has additional research expertise in auditory psychophysics, otorhinolaryngology, communication disorders and functional neuroimaging.

- Ronald R. Hoy, Ph.D. is Professor and Chairman of the Department of Neurobiology and Behavior, Division of Biology, at Cornell University. Dr. Hoy received his doctoral degree in biological sciences from Stanford and did postdoctoral work in zoology at the University of California-Berkeley. His current research includes neural, genetic and developmental analyses of acoustic behavior. His other research expertise includes comparative psychoacoustics and cognition, auditory physiology and neuroanatomy.
- Miriam H. Meisler, Ph.D. is Professor, Human Genetics Department of the University of Michigan, School of Medicine in Ann Arbor, Michigan. Dr. Meisler received her doctoral degree in biological chemistry from Ohio State University. Her current research involves the molecular basis of neuromuscular disease and the role of the laboratory mouse in the human genome project. One research project involves translating information on the mouse mutant, pirouette, to map the human homolog gene and hopefully learn more about neurosensory deafness.

Other Announcements

- Dr. Harold Varmus, Director, National Institutes of Health (NIH), announced that he
 will resign his position at the end of the calendar year. He will leave NIH to head the
 Memorial Sloan-Kettering Cancer Center in New York City.
- Council Member Dr. David Corey has been named recipient of the 1999 Rona Mirmelstein/Kresge Award for Excellence in Hearing Research. Dr. Corey's award was to be presented at the "Hair Cells and Hearing II Symposium" in New Orleans on October 7, 1999.

Trans-NIH Mouse Initiative

In March 1998, the NIH convened a group of 60 scientists to recommend priorities for mouse genomics and genetics resources. In response to the community's recommendations, the NIH has created a Trans-NIH Mouse Genomics and Genetics Resources Coordinating Group and a strategic implementation plan; Elke Jordan, Ph.D., Deputy Director, National Human Genome Research Institute is co-chairing this Group with Dr. Battey.

The goal of the Group was to enable and facilitate research by the entire community of investigators who use the laboratory mouse as a tool for understanding mammalian biology. The recommendations for funding includes four components: (1) structural analysis of the mouse genome; (2) functional analysis of mouse biology; (3) resources; and (4) training. Dr. Battey summarized some of the recommendations and plans for their implementation. It is expected that this initiative will have a remarkable impact on the research community.

Dr. Battey noted that, for the convenience of all interested investigators, a Web site related to this initiative has been established as a central informational resource (http://www.nih.gov/welcome/director/reports/mgenome.htm). It contains relevant information from all parts of the NIH, including summaries of the original planning meetings, publications about the NIH action plan, funding opportunities, progress reports, etc..

An RFA for repositories to facilitate preservation and distribution of strains has been issued by the National Center for Research Resources (NCRR) and they also have issued a Program Announcement indicating their willingness to support postdoctoral and mid-career training fellowships in mouse pathobiology (NCRR and others) Dr. Battey believes this will have a remarkable impact on the NIDCD research community, and will supply hundreds of animal models, much needed nucleotide sequence and map information, as well as normal sequencing capability to map and identify these genes.

NIH Mammalian Full-Length cDNA Project

Dr. Battey updated the Council on another initiative which had been started by Dr. Varmus, the NIH Mammalian Full-Length cDNA Project. In an effort to provide the research community with high quality, full-length mammalian cDNA clones and sequences, the NIH has established the Full-Length cDNA Initiative, managed by a trans-NIH steering committee. Ultimately, the clones and sequences produced through this initiative will provide a "gold standard" set of reagents for use by the research community.

The purpose of this initiative is to support the development of technologies that will facilitate the generation of a complete set of full-length human cDNAs as well as other mammalian cDNAs. Current methods of cDNA cloning and library production favor shorter, more heavily represented genes. In addition, although current methodology for isolating mRNA for use in cDNA construction works well with cell lines, reliable methodologies for extraction of high quality mRNA from tissues remains a challenge. Use of human tissues may be necessary to achieve the goal of a complete set of human cDNA clones. Finally, reliable, high-throughput methods to determine whether clones contain a copy of the full transcript, the full coding region, or a partial transcript are needed.

Budget Considerations

Using a pie chart, Dr. Battey began his review of the Institute's estimated FY 2000 budget, illustrating that the Research Project Grants category would be \$164 million or 69.2%, of the entire appropriation. Other budget items include \$11 million (4.6%) for R&D contracts; \$20 million (8.4%) for Intramural Research; \$9 million (3.8%) for Research

Management and Support; \$8 million (3.4%) for Research Training; \$5 million (2.1%) for Other Research; and \$20 million (8.4%) for Research Centers. These figures are based on a 2.1 percent increase proposed by the President.

Dr. Battey noted that there has been a substantial increase in the intramural research line, due primarily to NIH's model for funding the new Clinical Research Center. Each Institute or Center pays a sum based on a percentage of their intramural budget, not the Institute's utilization.

Dr. Battey next discussed how the nearly \$36.2 million available for competing research project grants will be allocated for FY2000 initiatives and Councils. After consideration of pre-existing commitments, approximately \$10.2 million is available for the October Council. As is traditionally done in the NIDCD, 15 percent of this (\$1.5 million) will be designated for High Program Priority. This leaves approximately \$8.7 million available for the initial payline, to the 21st percentile.

Copies of the slides Dr. Battey used for his budget presentation are included in these Minutes as Appendix 1. [Executive Secretary Note: The NIDCD appropriation for FY2000 was approved in December. NIDCD received \$265,185,000, a 15 percent increase over FY1999.]

III. Council ProceduresDr. Craig A. Jordan

Procedural Matters

Dr. Jordan discussed important procedural matters, including requirements imposed by the Government in the Sunshine Act and the Federal Advisory Committee Act. The necessity of members avoiding conflict of interest, or the appearance thereof, was stressed, as was the need to maintain confidentiality concerning the proceedings and materials related to the closed portion of the meeting. Dr. Jordan announced that the Council meeting would be open to the public during the morning session, but would be closed for the presentation of the Report of the Board of Scientific Counselors and for consideration of grant applications during the afternoon.

Consideration of Minutes from the Meeting of May 27, 1999

Dr. Battey called members' attention to the Minutes of the Council's meeting of May 27, 1999. The minutes were approved as written.

Confirmation of Dates for Future Council Meetings

Dates for the Council meetings through October 2001 have been established. A list of these meetings was distributed to the Council members. The next meeting of Council is scheduled for Friday, January 21, 2000 and will be held on NIH's Bethesda campus.

IV. Report of the Acting Director, DEA......Dr. Jordan

Dr. Jordan, Acting Director of the Division of Extramural Activities, reported on the activities of that Division since the last meeting.

Staff Changes

Dr. Jordan introduced two new staff members. Dr. Stanley Oaks joined the Scientific Review Branch as a Scientific Review Administrator and is currently managing the review of the Small Grants Program and the High-Impact Research: Feasibility Studies (R21s) initiatives. Dr. Oaks came to the NIDCD from the National Institute of Allergy and Infectious Diseases.

Ms. Gail Hamilton joined the Grants Management Branch in September, coming to the Institute from the National Institute of Arthritis and Musculoskeletal and Skin Diseases, where she served as a Grants Technical Assistant in the Arthritis, Rheumatic Diseases Program.

<u>Update on September Mail Ballot</u>

The Council voted to approve all six of the staff recommendations that were contained in the special September mail ballot. Dr. Jordan remarked that Council's participation in that ballot was essential in closing out the fiscal year. Three of the ballot items allowed the support of NIDCD grants with funds from other NIH sources. Two of those activities were funded by the Office of Research on Minority Health, and one set of applications was funded by the National Institute on Drug Abuse, specifically the Small Business Innovation Research activity.

Interim Actions

Dr. Jordan presented the Interim Actions Report to inform the Council of grant award actions performed by staff, on behalf of the Council, since the last meeting. Execution of these actions is based on the guidance outlined in the Council Operating Procedures. These actions included eighteen changes of institution, one change of principal investigator, and four research supplements for underrepresented minorities in biomedical research awards. There also was one research supplement to promote reentry of a disabled individual, and one administrative supplement to a conference grant for the Association of Research in Otolaryngology, to support captioning at the annual meeting.

Competing Grants Awarded

Dr. Jordan summarized the listing of competing grants awarded between May 5 and September 14, 1999, which had been sent out to members prior to the meeting. Of the R01 awards, 12 had received High Program Priority nominations by the Council. There

were seven Institutional Training Grants awarded, including two new grants. In addition, there were 13 Individual Fellowships awarded, 10 to postdoctoral fellows, one to a minority individual and two to senior investigators.

V. Report of the Acting Director, DHCDr. Judith Cooper

Dr. Judith Cooper, Acting Director of the Division of Human Communication, reported on several activities of that division.

Staff Changes

Dr. Cooper introduced Dr. Nancy Freeman, who joined the Hearing and Balance Program in August as a Program Administrator. Dr. Freeman was formerly a research associate at the University of Pennsylvania. She received her doctorate from Washington State University and performed postdoctoral work at Columbia University. She brings much needed expertise in molecular biology with experience working in both yeast and mammalian models.

NIDCD Initiatives

Next, Dr. Cooper described several trans-NIH activities as well as a number of NIDCD initiatives, in which Program staff are involved. She discussed the progress of several of these initiatives, some of which have evolved into Request for Applications (RFAs), Program Announcements (PAs), contract solicitations, workshops and conferences.

NIDCD/NASA Initiative

Dr. Cooper introduced Dr. Daniel Sklare who presented a new initiative being brought to Council for their comments and concurrence. The NIDCD has collaborated with the Life Sciences Division of the National Aeronautics and Space Administration (NASA) on initiatives of shared scientific interest since 1992. The latest collaboration was the cosponsorship of a workshop entitled "Role of Transgenic and Knockout Studies in Understanding Sensory-Motor Performance in Altered Gravitational Performance." The purpose of this workshop was to explore two questions:

- Do studies using genetically altered experimental model systems hold promise in advancing our understanding of the development and function of sensory-motor mechanisms that detect and respond to gravity?
- Do studies using such model systems hold promise in advancing our understanding of the effects of altered gravitational exposure on these sensorymotor mechanisms?

The Workshop's participants unanimously agreed that there is a need and opportunity for research in these areas. With Council concurrence, the NIDCD plans to co-sponsor an initiative with NASA to support exploratory/developmental grants utilizing models to elucidate the development and function of sensorimotor mechanisms that detect and respond to gravity. Council concurred with the concept initiative as described by Dr. Sklare.

VI. Recommendations for Reorganization Of CSR Review Committees......Dr. Ellie Ehrenfeld

Dr. Battey introduced Dr. Ellie Ehrenfeld, Director of the Center for Scientific Review (CSR). Dr. Ehrenfeld assumed that role in January of 1997; since that time, there have been significant changes, in large measure due to advice sought from the extramural community. Dr. Ehrenfeld discussed recent recommendations she has received from an advisory body, the Panel on Scientific Boundaries for Review. That report is available on the Web (http://www.drg.nih.gov/bioop/select.htm) and public comment was solicited. Dr. Ehrenfeld presented the plans for finalizing these recommendations in subsequent months and addressed other questions about this process and the future of CSR.

VII. An Update of the Behavioral and Social Sciences Review ReorganizationDr. Virginia Cain

Next, Dr. Battey introduced Dr. Virginia Cain, Special Assistant to the Director, Office of Behavioral and Social Sciences Research. Dr. Cain led the effort to reorganize the review of behavioral and social sciences applications at the NIH. This was an effort that involved staff participation from most of the NIH Institutes and many distinguished extramural scientists. The final recommendations from this process have been put into place over the past months with the establishment of 16 new study sections. Dr. Cain discussed this reorganization effort, supplied some information about the assignment of NIDCD applications to these study sections, and addressed questions from the group.

VIII. Strategic Plan: Plain Language Version Ms. Virginia Stern

The NIDCD has developed a new strategic plan in early 1999, to draw attention to extraordinary research opportunities and compelling needs. While this plan assists the NIDCD in focusing on specific areas of research, it is not intended to be an all-encompassing master plan for funding. The Institute's first priority is the funding of high quality research, conceived and initiated by members of the research community, that will help achieve the goals and objectives of the NIDCD.

The suggestion was made by several Council members in May, that a "plain language" version of the plan be developed for members of the general public. The Council believed that a less technical version would be very useful in disseminating the goals of the Strategic Plan to the general public and that such a version should include examples of current health issues that could be addressed by these strategic research goals. After the May meeting, a work group was formed to take on this task. Ms. Virginia Stern, who co-chaired the work group with Dr. Patrick Brookhouser, presented the plain language version developed by the work group.

This report met with Council's approval and will now be posted on the NIDCD Homepage (http://www.nih.gov/nidcd/about/director/nsrp.htm),

NIH policy requires each National Advisory Council to review the activities of their respective intramural program once a year. Dr. Robert Wenthold, Scientific Director of NIDCD's Division of Intramural Research (DIR), presented the report.

He began his report by announcing that two investigators have been offered tenure track positions. They are Dr. Doris Wu, a Research Fellow with the NIDCD; and Dr. Matthew Kelley, Assistant Professor, Department of Cell Biology, Georgetown University. Dr. Wenthold summarized the academic background and research interests of each of these investigators, and also discussed the planned recruitment of another tenure track investigator in otolaryngology/genetics.

Next, Dr. Wenthold discussed the current and planned space allocations for various Intramural Research Program laboratories. Additional space has been allocated in the Clinical Center, which will be used for a tenure track clinical investigator in 2001-2002. NIDCD has also been granted space in Building 50 on the NIH campus; this space will be utilized for the laboratories of four established investigators and is expected to be ready for occupancy in late 2000. Dr. Wenthold also discussed the addition of 3500 square feet of space to the 5 Research Court laboratories. This additional space will greatly benefit the Intramural Research Program until the entire NIDCD program is placed on the main NIH campus, tentatively planned for 2008.

Dr. Wenthold closed his report with an update about the cDNA libraries generated in the Division of Intramural Research.

CLOSED SESSION

Next, Dr. Wenthold presented the Report of the Board of Scientific Counselors. As stipulated by law, each Institute, Center or Division must provide annually to its National Advisory Council an overview of its intramural research program. The overview should include the reports of the Board of Scientific Counselors, and the responses of the Scientific Director. This presentation is strictly informational; Council members are not asked to recommend approval or disapproval of the reports or to modify them in any way. However, the Council may make recommendations to the Director, NIDCD regarding such research on the basis of the materials provided.

Dr. Wenthold presented the results of the Board's review. During this presentation, the meeting was closed to everyone but the Council members, the Director, NIDCD; the Deputy Director, NIDCD; the Director, Division of Extramural Research, NIDCD; and the Executive Secretary of the Council.

XI. Council Consideration of Pending Applications

The Council gave special attention to applications from foreign institutions and to applications involving issues related to protection of human subjects, animal welfare, biohazards and/or minority and gender representation in study populations as identified by the initial review groups.

A. Research Project Grant Awards

1. Consideration of Applications: On the Council's agenda was a total of 130 research grant applications; 106 applications had primary assignment to NIDCD, in the amount of \$26.03 million first-year direct costs. It is anticipated that, for research project grants competing at this Council, NIDCD will be able to pay first-year direct costs through the 20th percentile.

<u>Council Actions</u>: Competing research grant applications recommended for further consideration by the Initial Review Groups and receiving Council concurrence are included as Supplement 1 in the official copy of these minutes.

B. Special Programs Actions

1. <u>Small Business Innovation Research Awards (SBIR).</u> The Council recommended support for six Phase 1 (R43) applications.

- 2. <u>Small Grants (R03):</u> The Council recommended support for eight applications.
- 3. <u>Clinical Research Centers (P50):</u> The Council recommended support for two applications.
- 4. <u>Academic Research Enhancement Awards (R15)</u>: The Council recommended support for two applications.

C. Career Development Programs

- 1. <u>Mentored Clinical Scientist Development Award (K08):</u> The Council recommended support for one application.
- XII. Adjournment: The meeting was adjourned at 2:05 p.m. on October 7, 1999.

XIII. Certification of Minutes

We certify that, to the best of our known accurate and correct. ¹	owledge, the foregoing minutes and attachments are
	Craig A. Jordan, Ph.D. Executive Secretary National Deafness and Other Communication Disorders Advisory Council
	James F. Battey, Jr., M.D., Ph.D. Chairman National Deafness and Other Communication Disorders Advisory Council
Jeannie Combs Council Assistant	Director National Institute on Deafness and Other Communication Disorders ²

¹These minutes will be formally considered by the Council at its next meeting; corrections or notations will be incorporated in the minutes of that meeting.

APPENDICES

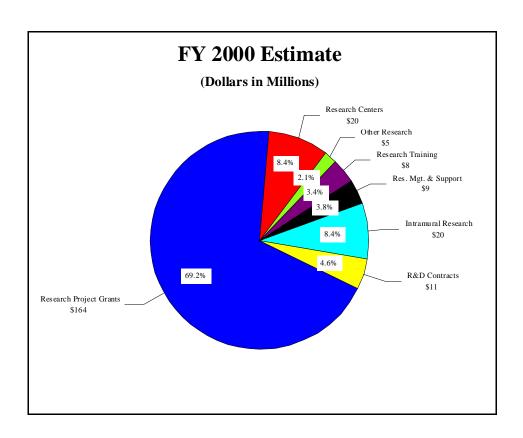
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Appendix 1

NIDCD Director's Report Slides

As Presented By James F. Battey, Jr., M.D., Ph.D. NDCD Advisory Council Meeting October 7, 1999

National Institutes of Health National Institute on Deafness and Other Communication Disorders



National Institute on Deafness and Other Communication Disorders Budget Mechanism

(Dollars in thousands)

	FY 1999	FY 2000
	<u>Appropriation</u>	Estimate
Research Projects Grants	\$160,483	\$164,292
Research Centers	19,872	19,944
Other Research	5,159	5,220
Total, Res. Grants	185,514	189,456
Individual Training	2,117	2,170
Institutional Training	5,797	5,798
Total, Training	7,914	7,968
R&D Contracts	10,138	10,582
Intramural Research	17,147	19,899
Research Mgmt. & Support	9,174	9,266
TOTAL	229,887	237,171

National Institute on Deafness and Other Communication Disorders Research Project Grants

(Dollars in thousands)

FY 2000 Estimate

	No.	Amount
Noncompeting	528	\$121,855
Admin. Supp.	(25)	900
Competing	160	36,430
Subtotal, RPGs	688	159,185
SBIR/STTR	_22	5,107
Total, RPGs	710	164,292

National Institute on Deafness and Other Communication Disorders

May 1999 Council Competing Research Project Grants (Dollars in thousands)

\$ 36,186	
-500	Mouse mutagenesis/phenotyping centers
-200	ВМАР
-250	Ethical, legal, social implications- human genetic variation
-750	Health promotion & disease prevention
-1500	Early identification of hearing impairment
-1,500	R03s
-750	High impact research (R21)
<u>-1000</u>	Carryover
30,736	
/3	
10,245	Identified for May Council
x.15	
1,536	Available for HPP
\$8,709	Available for initial payline to the 21.0 percentile

Appendix 2

ATTENDANCE LIST

Other than Council members, attendees at the October 1999 Council meeting included:

NIDCD Staff:

Office of the Director Luecke, Donald H., M.D., Deputy Director

Office of Administration
Kerr, W. David, Executive Officer

<u>Financial Management Branch</u>
Sparks, Patience, Budget Officer
Hirschbaum, Lisa, Budget Analyst
Oyola, Tamara, Presidential Management Intern

<u>Information Systems Management Branch</u> Hamilton, Susa, Chief

<u>Personnel Management Branch</u> Clements, Christine, Chief

Science Policy and Legislation Branch Smith, Mary Acting Chief Rodas, Enna Program Analyst Wong, Baldwin Program Analyst

Office of Health Communication and Public Liaison Allen, Marin, Ph.D., Director

<u>Division of Extramural Research</u>
Dobie, Robert A., M.D., Director
Combs, Jeannie, Program Analyst
DaSilva, Maria, Program Assistant
Holmes, Deborah, Secretary
Nuss, Mary, Committee Management Officer

<u>Clinical Trials Branch</u> Gulya, A. Julianna, M.D., Chief

Grants Management Branch

Hunt, Sharon, Chief Chicchirichi, David, Grants Management Specialist Dennison, Sherry, Grants Management Officer Hamilton, Gail, Grants Management Specialist McNamara, Castilla, Grants Management Specialist Ranney, Meigs, Grants Management Officer

Hearing and Balance/Vestibular Sciences Branch

Donahue, Amy M., Ph.D., Chief Freeman, Nancy, Ph.D., Health Scientist Administrator Johnson, Thomas, Ph.D., Health Scientist Administrator Luethke, Lynn, Ph.D., Health Scientist Administrator Sklare, Daniel A., Ph.D., Health Scientist Administrator

Scientific Review Branch

Jordan, Craig A., Ph.D., Chief Lawson, Diane, Grants Technical Assistant Oaks, Stanley C., Ph.D., Scientific Review Administrator Stick, Melissa J., Ph.D., M.P.H., Scientific Review Administrator

Voice, Speech, Language, Smell, and Taste Branch

Cooper, Judith A., Ph.D., Chief Ansel, Beth M., Ph.D., Health Scientist Administrator Small, Rochelle, Ph.D., Health Scientist Administrator

Division of Intramural Research

Wenthold, Robert J., Ph.D., Director

Center for Scientific Review, NIH

Kimm, Joseph, Ph.D., Scientific Review Administrator Kenshalo, Daniel, Ph.D., Scientific Review Administrator Meadow-Orlans, Kathryn, Ph.D., Scientific Review Administrator Sostek-Miller, Anita, Ph.D., Scientific Review Administrator

Appendix 3

Roster

National Deafness and Other Communication Disorders Advisory Council

Chairperson

Battey, James F., Jr., M.D., Ph.D.
Director
National Deafness and Other Communication Disorders
Bethesda, Maryland 20892

BERNDT, Rita S., Ph.D. Professor Department of Neurology University of Maryland School of Medicine 22 South Greene Street Baltimore, Maryland 21201	2002	DAVILA, Robert R., Ph.D. Vice President National Technical Institute for the Deaf Rochester Institute of Technology Lyndon B. Johnson Building, Room 2130 52 Lomb Memorial Drive Rochester, New York 14623-5604	2000
BURD, Gail D., Ph.D. Associate Professor Department of Molecular and Cellular Biole Life Sciences South Building 444 University of Arizona Tucson, Arizona 85721	•	DUBNO, Judy R., Ph.D. Professor Department of Otolaryngology- Head and Neck Surgery Medical University of South Carolina 39 Sabin Street, PO Box 250150 Walton Research Building Room 608	2003
COHEN, Bernard, M.D. Morris B. Bender Professor	2002	Charleston, SC 29425	
Department of Neurology Mount Sinai School of Medicine City University of New York 1 East 100 th Street New York, New York 10029		DRESSER, Rebecca S., J.D. Professor, School of Law and Program for the Humanities in Medicin Washington University School of Law 1 Brookings Drive Campus Box 1120	2001 e
COREY, David P., Ph.D. Professor of Neurobiology	2001	St. Louis, Missouri 63130	
Harvard Medical School Neurobiologist, Department of Neurobiologist Massachusetts General Hospital Boston, Massachusetts 02114	gy	FRASER, Jane H. President Stuttering Foundation of America 3100 Walnut Grove Road, Suite 603 Memphis, Tennessee 38111	2000

HARRIS, Bernard A., Jr., M.D. Vice President Microgravity and Life Science SPACEHAB, Inc. 1331 Gemini Avenue, Suite 340 Houston, Texas 77058	2002	STERN, Virginia W. American Association for the Advancement of Science 1200 New York Avenue, N.W. Washington, D.C. 20005	2001
HOY, Ronald R., Ph.D. Professor Section of Neurobiology and Behavior Seeley G. Mudd Hall W 215	2003	TAYLOR, Orlando L., Ph.D. Dean Graduate School of Arts and Sciences Howard University Washington, D.C. 20059	2001
Cornell University Ithaca, New York 14853-2702 JONES, Jacqueline E., M.D. Associate Professor of Clinical Otolaryngology Cornell University Medical College 525 East 68 th Street, Starr 541 New York, New York 10021	2002	WOLF, Gregory T., M.D. Chair, Department of Otolaryngology- Head and Neck Surgery University of Michigan Medical Center 1500 East Medical Center, Box 0312 Ann Arbor, Michigan 48109-0312 Ex-Officio Members:	2001
MEISLER, Miriam H., Ph.D. Professor Human Genetics Department School of Medicine University of Michigan 4708 Medical Sciences II Ann Arbor, Michigan 48109-0168	2003	BECK, Lucille B., Ph.D. Director Audiology and Speech Pathology Service (117A) Department of Veterans Affairs 50 Irving Street, N.W. Washington, D.C. 20422	
RHOADES, Everett R, M.D. Associate Dean for Community Affairs University of Oklahoma College of Medicir Office of the Dean P.O. Box 26901, BMSB-357 Oklahoma City, Oklahoma 73190	2000 ne	FRANKS, John R., Ph.D. Chief, Bioacoustics and Occupational Vibration Section Physical Agent Effects Branch Division of Biomedical and Behavioral Scier National Institute for Occupational Safety and Health	nce
SORKIN, Donna L. Alexander Graham Bell Association for the Deaf and Hard of Hearing 3417 Volta Place NW Washington, DC 20007-2778	2002	4676 Columbia Parkway Mail Stop C-27 Cincinnati, Ohio 45226 HOFFER, Michael E., M.D. Department of Otolaryngology	
STEINBERG, Bettie M., Ph.D. Chief, Otolaryngology Research Department of Otolaryngology Long Island Jewish Medical Center 270-05 76th Avenue New Hyde Park, New York 11040	2000	Naval Medical Center 34800 Bob Wilson Drive San Diego, California 92134-5000	

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VARMUS, Harold, M.D. Director National Institutes of Health Building 1, Room 114 Bethesda, Maryland 20892

EXECUTIVE SECRETARY

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